Architectural History

Most of this report contains site specific recordations of the CDF buildings that have been identified as being over 49 years of age. Logically, then, a few words about the CDF's architectural history are in order. The discussion must embrace two parallel developments. One is the evolution within the CDF organization the other is the accomplishments of the Forest Service.

As we saw in the previous pages, the CDF could be said to have started in 1905 with the creation of the position of State Forester. From 1905 until 1919, the State Forester and the "forestry department" were one-and-the-same. The "department" consisted of the State Forester and a few office staff and assistants based in Sacramento. The remainder of the department was the large body of local firewardens. The were, however, funded and supported by their local jurisdictions. In 1919, the first "State Rangers" were hired but it was their responsibility to secure housing and equipment through their respective counties. This can be said to have characterized the State architectural program until the CCC era with the exception of the fire lookout program and the Davis Nursery.

Clar's history, related earlier, reports that the Davis Nursery buildings were rendered in a "colonial" design by the "State engineer" in 1921. This maybe the only CDF associated buildings that were based on State generated plans prior to 1931. Fortunately, at least one of the original Davis buildings has survived relatively intact to the present day. The survivor is a house which has been moved on two occasions and has lost some of its Colonial styling but it still reflects its heritage.

The first State funded fire lookout was erected on Mount Bielawski in the Santa Cruz Mountains in 1922. The tower was from the Aermotor Company. The mid-West Company was a regular supplier of steel towers to the Forest Service from the teens through the 1930s, and for the CDF from the 1920s through the 1930s. These were observation-only towers, i.e. the 7' x 7' cabs were occupied by day and the lookout retired to a small cabin at night and during meal breaks. The Aermotor Company tower design had been around since the beginning of the century. The Mt. Bielawski residence cabin was a small rectangular building that might be described as a "vernacular" house with Craftsman-Bungalow elements. It was removed many years ago. The Mount Oso fire lookout tower was erected ahead of the Mt. Bielawski station but through local, private initiative and resources not with State funds. The original tower is gone but historic photographs show that a non-standardized building was installed at this site, a typical occurrence for "donated" buildings. Several more state fire lookout stations were established in the 1920s. Generally, they consisted of simple observation-only towers with small living quarters nearby. If the construction was directly funded by the State, the towers were either steel Aermotor types or simple wooden observation-only towers. From 1927 to the CCC era the CDF fire lookout collection nearly tripled in size with much of this activity performed in cooperation with the Forest Service. As can be expected, these buildings usually conformed to the Forest Service architectural standards of the day.[39]

Other than the fire lookouts, the construction of buildings in the 1920s to serve the needs of the State Rangers was pretty much the individual State Ranger's responsibility. That is to say, the State of California did not fund for any construction. The "historic" San Jacinto Ranger's Office now located at the San Jacinto Forest Fire Station is the only known surviving State Ranger's office from the 1920s. It can be described as a small "vernacular" styled building with both Neoclassical and Craftsman-Bungalow elements. It probably was loosely based on the duBois plans used by the Forest Service at that time. The office was originally on private land.

The first State firetrucks were not acquired until 1929. It's unknown where they were housed but they are believed to have been sheltered in buildings provided by the counties they were assigned to. The first official State "standby crews" were not hired until 1931. The old fire station buildings upon Mount Zion are the only pre-CCC era suppression station facilities in the CDF property inventory. They were constructed as part of the State labor camp located at the site in the winter of 1931-32. The buildings were "reconstructed" in the early 1950s, and the degree of historic integrity loss has not been ascertained.

We turn now to the pre-CCC era Forest Service building policies. Forest Service, California District Forester Coert duBois is acknowledge as having set the policy of "standardized building plans." He established the concept with the publication of his *Systematic Fire Protection In The California Forests* in

1914. Three years later a manual with working plans for ranger's offices, crew quarters, lookouts, barns, and other buildings was published and circulated throughout the Forest Service system in California. (There is good indication that duBois' plans were utilized by other National Forests outside of California, as well.) In commenting on this circular, the Forest Service's publication *Contextual History Of Forest Service Administrative Buildings In The Pacific Southwest Region* by Dana Supernowicz reports that duBois' plans "were adopted by many forests, but due to varying mill grades of lumber, accessibility, costs, and individual preferences, the final buildings were often different from the original plan."

Even duBois, in his 1917 manual acknowledged that there would be times and circumstances when special designs may have to be substituted for the standard plans. Thus, a rigid system of architectural conformity had not been implemented. Supernowicz comments that the duBois "...buildings were small and inexpensive to erect..." He adds that the cost for a one room office was "...$112 in labor plus materials, well within the [Forest Service's] $650 building spending limitation..." Supernowicz describes the buildings as reflecting "...the influence of the Craftsman architecture of the era and were obviously designed with an eye to more than strictly functional requirements. Designs such as dwelling 1D [a one room office] with its classic-temple inspired front porch, overhanging eaves, clapboard siding, and gable roof would be right at home in almost any working-class neighborhood of the era."[40]

The duBois circular served as the guideline for Forest Service buildings throughout the 1920s. As the 1930s began, the Forest Service adopted a policy which required that local rangers and supervisors consider the long range utility of a site and useability of a building before committing funds for construction. Also, the construction of fire protection facilities was prioritized over that of administrative improvements. The emphasis on fire protection facilities came from District Forester Stuart Show.

With the advent of the CCC program, Show assigned Assistant District Forester, Louis Barrett, the task of overseeing an architectural section within the Forest Service administration at San Francisco. This section, which included landscape architects, was to prepare drawings for the various buildings and stations expected to be built with CCC labor. A June 16th, 1933 *California Ranger* (a California District Forest Service newsletter at that time) reported that the architectural style to be adopted for the new CCC buildings would be "all American - old world influences are barred and Uncle Sam's new ranger stations will represent only the best in the U.S.A." The newsletter continues:

> ...[a] revolution in Forest Service architecture [is] about to occur...
>
> The new deal is about to bring a renaissance in Forest Service ranger station architecture according to L.A. Barrett, Chief of Lands. The heterogeneous aggregation of administrative domiciles from the pre-Pinchot cabin to the late-Stuart bungalow will, in due time, be replaced by houses which will combine the last word in art, comfort and utility. Not only will the lines of our ranger station be revamped but the color scheme will be improved. The green roof will be retained but the French-battleship grey paint, which has depressed the morale of the rangers for fifteen years, will be changed to a brown stain to blend appropriately with the colors of the forest.
>
> All of this is cheering news. We will forget the past quarter century when the almighty dollar dictated to culture and every supervisor was his own architect. Unfortunately it is going to take us a long time to live down the amazing variety of stations built in this free for all period. We have most everything now, the trapper's cabins, miner's shacks, cowpunchers' bunk houses, ranchers' homes, and the bungle-ohs of the southern Californian from Iowa.
>
> Perhaps if the technicians can combine these forms and mix in few we haven't tried... with just a suggestion from Barrett's Specialists, they will evolve a distinctive model which will turn out to be the Great American home and will establish a new school of architecture.[41]

Two of Louis Barrett's architects were E. Maher and N. Blanchard. The men were the primary if not exclusive source for the new Forest Service architectural style to be adopted for the CCC construction program in California. The Blanchard and Maher drawings included plans for residences, residence garages, suppression station truck garages, ranger station offices, ranger station equipment storage sheds, warehouses, gas and oil houses, and a wide assortment of other building types. Supernowicz, in his report,

indicates that the Blanchard and Maher style was dubbed "Mother Lode architecture" but the two men never "defined what was meant" by the appellation.[42] Supernowicz goes on to report that the men "...were influenced by the work of fellow [San Francisco] Bay Area architect William Wurster, who in the 1920's and early 1930's was developing a design vocabulary based on the rural vernacular building of mid-19th century central California..."[43] Supernowicz later describes the Blanchard and Maher designs as being influenced by both the Craftsman-Bungalow and California Ranch styles. The former was very popular in California in the 1920s and the latter gained popularity in the 1930s and '40s.[44]

The ECW placed cost ceilings on building construction so various means were enlisted to keep expenses down. Supernowicz also reports that: "...no contributed labor was allowed except the CCC crews which were used primarily for the rough labor, such as constructing foundations, basements, rough framing, roofing, and building rock walls."[45] The idea of prefabricated buildings had been considered by the Forest Service architectural team but, Supernowicz reports:

> ...Blanchard and Maher decided that at the time the West Coast had little to offer in the field, and experiments conducted in other areas resulted in substantially higher costs. Rather than prefabrication, [Forest Service] Region 5 adopted a "ready-cut" design. The ready-cut system of building was adapted to home and commercial building construction shortly after 1900. The idea of ready-cut housing may have been the result of factory techniques employed by the automobile industry for mass production. During the 1920's the growing home market created a demand for inexpensive housing, in particular for suburban tract housing. The depression of the 1930's only increased the demand...[46]

Supernowicz also comments that wood was the preferred material for Region 5 and quotes Blanchard and Maher on this:

> The outside finish was clear, all heart redwood or western cedar. Under the building paper was shiplapped diagonal sheathing. On the inside clear Douglas fir or ponderosa pine was used to panel the interior. Floors and ceilings were of Douglas fir T & G and the roofs covered with wood shingles over paper and solid sheathing. Subfloors were laid diagonally.[47]

The Forest Service was lead agency for implementing the CCC program. Besides setting policy for building and site designs, the agency arranged acquisition of materials and delivery, and scheduled project assignments. There's good indication that the Forest Service's position in the oversight of the conservation projects occasionally left the CDF at a disadvantage. As regards fire lookouts, the live-in tower and cab had long become the favored building type. Towers could be constructed of either steel or wood with steel being preferred. However, steel towers were hard to come by. A competition of sorts between the various National Forests of California for these towers seems to be vaguely alluded to in some of the CCC era reports on construction progress. The CDF however only obtained three or so of the several dozen towers that were up for grabs. Perhaps another indicator of the Forest Service's first-in-line perquisite was the fact that a number of state stations were not constructed until after the majority of the Forest Service facilities had been completed. This could, of course, also reflect the CDF's lag in preparing a statewide program for identifying and locating appropriate station sites. And, the CDF was saddled with delays attendant to purchasing or leasing land, and gaining easements through adjoining properties for roads and/or utilities. The Forest Service system of fire protection buildings was nearly always upon Federal land with little or no intervening private land to deal with.

The CCC program lasted from 1933 to 1942 with most of the capital improvement work for the Forest Service completed by the end of 1939. By this time a number of the CDF's buildings had also been erected and most were based on the Forest Service plans. In fact, several drawings rendered by the Forest Service were titled for the "State Division of Forestry." An example is the kitchen-messhall at the Alma Forest Fire Station. It was originally an office and the working plan is still in the Forest Service files in San Francisco.

Blanchard and Maher incorporated several stylistic details which have left their signature on the various building types they drafted. One trait used on combination barracks, offices, and garages was the three panel "chevron" louvered attic vent (see Figure 1). A number of examples of this vent style are still in the CDF building collection. Another characteristic found at the gable ends of the warehouses and larger truck

garages was a 15 foot wide, full height band of board and batten siding with the balance of the flanking wall space covered in the traditional "v" rustic (flush shiplap) siding. In the field, however, the board and batten detail was reversed to a channel siding (see Figure 2). Other common elements were open eaves and wood frame divided light windows (the moveable sash could be casement or hopper on service buildings, casement and double hung on combination barracks, and predominately double hung on residences). Screened entry porches recessed under the principal roof were incorporated into office, residence, and combination barracks floor plans.

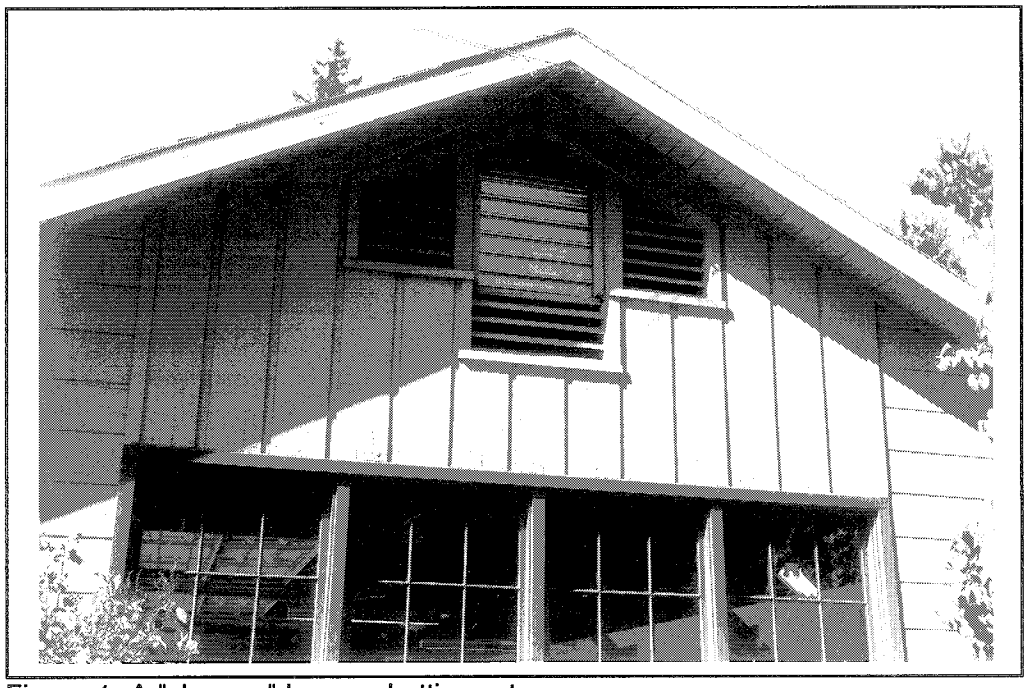

Figure 1: A "chevron" louvered attic vent.

President Roosevelt's Public Works Administration (PWA) and Works Progress Administration (WPA) were but two more methods used in the 1930s to combat the Great Depression. Through the WPA much work was accomplished for the CDF. (The CCC program could be said to have employed laborers while the WPA program was putting professionals such as architects and engineers to work.) In the waning years of the CCC program several State suppression stations were built using plans drawn by the State Division of Architect under WPA funding. While wood construction was the mainstay for both the Forest Service and the CDF, several significant departures came about at this time. In 1939 an adobe building which housed a barracks, kitchen, messhall, and truck garage was erected in Tulare County at the Fountain Springs Suppression Station site. The building was designed by the State Division of Architect. Several years earlier an adobe house, based on a CCC-WPA standardized wood frame ranger's residence design, had been constructed at the Hammond Suppression Station site, also in Tulare County. A truck garage was erected near the house in 1938 and the combination barracks was completed in 1943. Tulare County had two other State adobe fire stations built. The Milo Suppression Station combination barracks and garage significantly foreshadows post-war suburban residential styles. The other adobe station has been removed. Another State Division of Architect drawn adobe station complex was constructed in 1943-44 near Carmel in Monterey County.

The use of natural rock first appeared in 1934 at the Cuyamaca Suppression Station in Southern California. However, this reflected the fact that the facility was inside the newly established Cuyamaca State Park. Buildings constructed during the CCC era that were inside parks (State or Federal) generally were "rusticated" to blend in with the "park ambience." However, two other stone fire stations were erected in Southern California outside of park land. The attractive West Riverside Suppression Station still survives. The influences of Craftsman-Bungalow, California Ranch, and/or Spanish Revival could be seen in many of

these and other State Division of Architect working plans that were produced in the late 1930s and early 1940s.

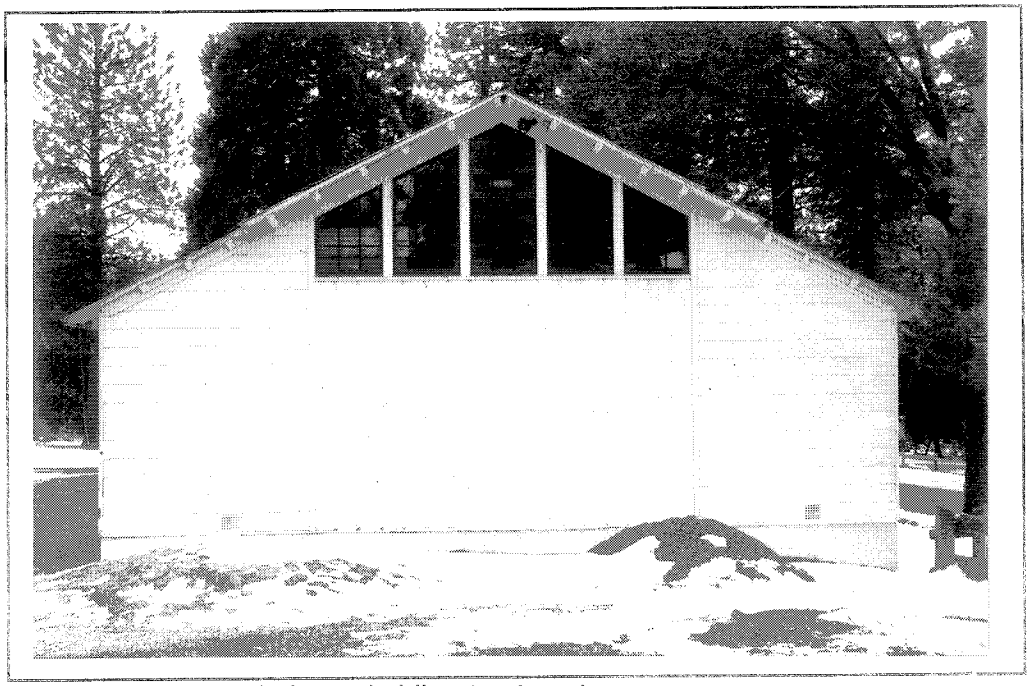

Figure 2: Gable end channel siding treatment.

As mentioned, landscape architects were also involved in the CCC planning process. Generally, the goal was to build compounds that harmonized with the surrounding topography and natural vegetation. The layout for the State suppression stations included a combination barracks, truck garage, gas house, and well pump house. The "combination barracks" included sleeping quarters, bath, laundry, kitchen, and dining (messhall) areas. It was customary to have a "cook's quarters" next to the kitchen. Truck garages had either one or two vehicle bays and one or two storerooms. The gas house (or gas and oil house) consisted of a small rectangular building with roof overhang to shelter the adjoining service island. Most of these were one-pump installations. The pump was either a small direct feed or gravity feed (glass tower) hand pump. Single family ranger's residences were found at most suppression stations and at the ranger unit headquarters. A detached one or two car garage with storage room accompanied the house.

The ranger unit compound generally consisted of one or more residences, a combination barracks, ranger's office, warehouse, a 5-bay to 8-bay equipment shed, and an automotive repair shop. Gas and oil houses and well pump houses, along with additional storage buildings rounded out the complement of facilities. Another common feature of the headquarters compound was a walk-in cooler located by the combination barracks or by the kitchen-messhall if the fire crew sleeping quarters were separately housed. Occasionally water "tank houses" (enclosed water towers) were erected at headquarters and/or suppression station sites. The tobacco brown paint subscribed by the Forest Service was also used by the CDF at the stations in the woods. Installations located in open range, brush country, and other non-timbered environments were painted white with green trim.

In addition to the adobe and stone buildings, the CDF began to try other ideas in building design and station layout. The combination barracks had been the norm during the CCC era but in 1943 three CDF stations were established with separate barracks and kitchen-messhall buildings. This practice continued after the War. The CDF also experimented with standardized "military surplus" buildings. The rectangular steel frame metal clad buildings were reportedly used in the Pacific Theater during the War. The Army shipped the material back home and the State began acquiring these buildings in 1945. By 1953 some three dozen locations in the CDF system had received a surplus building. The ones that have survived to today have been included in this report. The buildings are all 20 feet wide and vary from 48 to 88 feet in length.

Two of the longer ones originally had truck garages incorporated at one end of the building. In fact this business of combining the combination barracks with the truck garage seems to have retained a degree of favor with the CDF engineers for some time. (Of coarse California single family homes have commonly featured attached garages since World War II.)

After the War the CDF developed its own engineering and architectural staff and this staff set about drawing up plans for new lookouts to augment the existing detection network and for new buildings to complete the suppression station network. Old inventory records indicate that some of the suppression camps founded in the 1930s consisted of wood platforms with canvas walls and roofs. The close of the ECW programs left the CDF with a number of unfinished and unimproved sites. This problem was soon taken care of during the economic boom of the 1950s. The commencement of the honor camp system aided in this process. One aspect of this program was the advent of a brick making plant at the Fort Millerton Fire Control Station. Youth Authority wards made the bricks and many attractive "Millerton brick" buildings were erected throughout central California from about 1948 until the early 1960s.

The suppression camps of the 1930s became known as suppression stations. After the War they were renamed fire control stations an appellation they retained until the 1960s when they became forest fire stations. During the years since the CCC program several policy changes and technological developments have equated into significant changes in the appearance of the pre-1946 building collection. In the 1960s asbestos cement tiles were introduced to cover up the weathered "v" rustic siding. During this decade the original wood garage doors started being repiaced with overhead sectional fiberglass doors (aluminum doors became standard replacement issue after the 1960s). Internal electrical wiring was identified as a safety hazard and upgrading commenced in the 1970s. With the introduction of HVAC systems, the screened fenestration of the CCC porches were glazed and the wood stoves or fireplaces rendered non-essential. The energy crisis of the early 1970s paved the way for more remodeling which included insulation, new windows, and solar water heating systems. Plumbing in general was upgraded and in many situations auxiliary utility closets were constructed on the rear or side elevations. As for the wood shingle roofs, asphalt composition shingles are the standard today. Many buildings have also lost their "v" rustic siding as plywood paneling or pressed hardboard has been substituted.

Revisions in building codes have been one influence on the changing condition of the pre-1946 building collection but other policies have also had an impact. Most of the truck garage storerooms have been converted to station offices reflecting the coming of "paperwork" for the station captains. The era of free housing and no property taxes ended during the 1960s. Since then the State has levied rental fees on the ranger's residences and other houses. A slow process to ratchet the rates up to reflect market value has resulted in most of the residences being vacated. The houses have either been converted to office use or demolished. Unionization of the CDF labor force brought about the end of the station cook system. (This historian can personally attest to the quality of food those folks use to serve.) Actually, the hiring of cooks to feed fire crews was already on a steady decline by this time (the Forest Service preceded the CDF in dropping the program). The old "cook's quarters" have usually been converted to pantry, storage, or office space.

Another change to impact the 6-men, 8-men, and 12-men barracks buildings was the advent of the female firefighter. These old buildings were obviously not designed for the "co-ed" environment. Internal remodeling, partition construction, and room additions are but a few of the actions that have taken place over the past 15 years to address this new era. Still other factors, including budget constraints, accidents, and the law of entropy, have impacted the pre-1946 building collection. The net result is that many of the CCC era buildings are gone, most of the survivors have been altered. There are, however, a few good examples left in the CDF property inventory. These specimens provide us with a vivid look into the past, and an opportunity to pay our respects to the accomplishments of our predecessors. It remains to be seen how many of these buildings will make it to the next century.

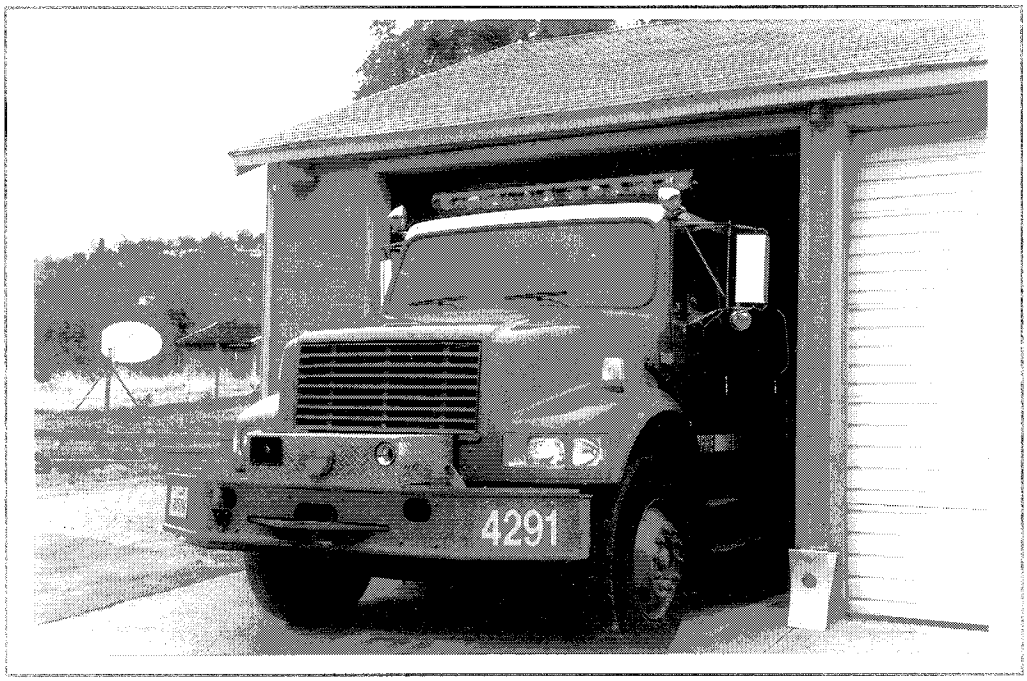

Figure 3: Another problem is clearence for newer fire engines through older doorways. A modern four-wheel drive truck wouldn't fit into the above garage.

Notes

1. "Protection of Forest From Fire" by Henry S. Graves, Forester. USDA *Bulletin 82*. 1910.
2. *Brief History of The California Division of Forestry* by C. Raymond Clar. DNR Sacramento. 2nd Edition. 1957. Pages 5 and 6.
3. Ibid., page. 6.
4. Ibid. page. 6.
5. *California Government and Forestry: from Spanish days to 1927* by C. Raymond Clar. DNR Sacramento. 1959. Page 256.
6. Ibid., pages 254 - 256.
7. Ibid., page 256.
8. Ibid., page 256.
9. Ibid., page 477.
10. *Brief History of The California Division of Forestry* op. cit. page 13.
11. *California Government and Forestry: from Spanish days to 1927* op cit, page 450.
12. Ibid., footnote 3 page 450.

Notes

13. Ibid., pages 453 and 454.

14. *Ninth Biennial Report State Board of Forestry* by M. B. Pratt, State Forester. Sacramento, 1922. Page 47.

15. Ibid.

16. *Brief History of The California Division of Forestry* op cit. pages 15 and 16.

17. Ibid., page 21.

18. Ibid., page 23.

19. Ibid., page 24.

20. *California Government and Forestry - II: during the Young and Rolph administrations* by C. Raymond Clar. DNR Sacramento, 1969. Page 183.

21. *Evolution of California's Wildland Fire Protection System* by C. Raymond Clar. CDF Sacramento, 1969. Page 22.

22. *California Government and Forestry - II: during the Young and Rolph administrations* op cit., pages 174 and 175.

23. For additional information about the fire lookouts see *An Inventory and Historical Significance Evaluation of CDF Fire Lookout Stations* by Mark V. Thornton. CDF Sacramento, 1991.

24. *California Government and Forestry - II* op cit., page 146.

25. Ibid., pages 146 and 147.

26. Ibid., pages 77 - 80.

27. "Report to Director Natural Resources" M. B. Pratt, State Forester. January 18, 1935. Sacramento.

28. *Brief History of The California Division of Forestry* op cit. page 26.

29. Ibid., pages 26 and 27.

30. *Evolution of California's Wildland Fire Protection System* op cit., pages 27 and 28.

31. Ibid., page 28.

32. *Brief History of The California Division of Forestry* op cit. page 29.

33. *Evolution of California's Wildland Fire Protection System* op cit., page 27.

34. Ibid., pages 28 and 29.

35. Ibid., page 29.

36. Ibid., page 29.

37. Ibid., page 33.

38. Current statistics extracted from handouts at CDF Sacramento.

Notes

39. For additional information about the fire lookout architecture see *An Inventory and Historical Significance Evaluation of CDF Fire Lookout Stations* by Mark V. Thornton. CDF Sacramento, 1991.

40. *Contextual History Of Forest Service Administrative Buildings In The Pacific Southwest Region* by Dana E. Supernowicz. USDA, Forest Service, Region 5, January 1989. Page 8.

41. As quoted in Ibid., pages 13 and 14.

42. Ibid., page 14.

43. Ibid.

44. Ibid., page 18.

45. Ibid., page 15.

46. Ibid.

47. Ibid., page 16.